

REMARKS

Claims 1-11 are pending. Claims 10 and 11 have been withdrawn.

1. Claims 1-9 were rejected under 35 USC 103(a) as being unpatentable over Tonyali et al. in view of Phillippi and Stoeppelmann et al. This rejection is respectfully traversed for the following reasons.

The claimed invention is drawn to a coiled air brake tubing, which includes a laminated tube having an inner-most layer of nylon, an intermediate layer of polyurethane, and an outer-most layer of nylon. As recited, the airbrake tubing is in a coiled configuration.

It appears that the PTO has relied upon Tonyali et al. for basic structural features of the claimed invention. In this regard, Tonyali et al. disclose a laminated air brake tubing assembly that includes an inner-most nylon layer, intermediate layers formed of polyethylene, and an outer-most nylon layer. It appears that the PTO has relied upon Phillippi for the coiled configuration. The PTO has correctly acknowledged that Tonyali et al. fail to disclose or even remotely suggest, a polyurethane intermediate layer. Accordingly, the PTO has looked to Stoeppelmann et al. to attend to the deficiencies of Tonyali et al.

Turning to FIG. 2 of Stoeppelmann et al., this reference discloses a multi-layer polymer hose 1 having an outer-most layer 4, an inner-most layer 2, and an intermediate layer 3, the intermediate layer being bonded to the inner and outer layers by use of a polyurethane adhesive, disclosed as layers 5 and 6. In the structure of Stoeppelmann et al., the intermediate layer 3 is typically formed of PBT, and provides the structural integrity and backbone of the multi-layer polymer hose. It appears that the PTO has argued that it would have been obvious to replace at least one of the polyethylene layers 18 and 26 of Tonyali et al. with polyurethane material according to Stoeppelmann et al. However, applicants respectfully submit that this substitution is not supported by the references of record, and the reasoning offered by the PTO is deficient.

Particularly, the PTO has argued that it would have been obvious to make the substitution because the polyurethane adhesive layers of Stoeppelmann et al. have "an inherent hardness as such would provide better adhering properties to the polyurethane layer when it is touching polyesters and polyamides." Applicants submit that this reasoning is clearly not supported by

the references, and that there is no teaching or suggestion that polyurethane provides superior adhesion in the context of the hose of Tonyali et al.

Additionally, the PTO argues that it would have been obvious to make the substitution, because the polyurethane of Stoeppelmann et al. is allegedly equivalent to the polyethylene of Tonyali et al. However, applicants respectfully submit that the references nowhere disclose or even remotely suggest the equivalency of these materials. Furthermore, applicants have discovered that the particularly claimed nylon/polyurethane/nylon configuration is superior to the nylon/polyethylene/nylon configuration taught by Tonyali et al. In particular, the claimed invention, which relies upon a polyurethane intermediate material, provides superior flexibility, greater durability, and superior cold resistance. See particularly, the present specification pages 7 - 10 discussing these advantages in detail and providing comparative testing. Clearly the art of record nowhere discloses or even remotely suggests such advantages.


To summarize, applicants submit that the art nowhere discloses or even remotely suggests the substitution of polyethylene of Tonyali et al. with polyurethane for any reason, let alone the reasons offered by the PTO. In addition, it is quite clear that the references of record nowhere disclose or even remotely suggest the particular advantages noted above. Accordingly, the PTO is requested to reconsider and withdraw the Section 103 rejection over Tonyali et al in view of Phillippi and Stoeppelmann et al.

Applicants respectfully submit that the present application continues to be in condition for allowance. Accordingly, the Examiner is requested to issue a Notice of Allowance for all pending claims. The Commissioner is hereby authorized to charge any fees, which may be required, or credit any overpayment, to Deposit Account Number 50-2469..

Respectfully submitted,

Date

10/27/04


John R. Schell, Registration No. 50,776
Agent for Applicant(s)
TOLER, LARSON & ABEL, L.L.P.
5000 Plaza On The Lake, Suite 265
Austin, Texas 78746
(512) 327-5515 (phone)
(512) 327-5452 (fax)